

REMARKS

Reconsideration and allowance are respectfully requested in view of the foregoing amendments and the following remarks.

Claims 12-26 are pending in this application.

Regarding the Allowed Subject Matter

Applicant respectfully appreciates the Examiner's indication that claim 26 is allowable.

Regarding the § 103 Rejection

Claims 12-17, 18, 19, 21, 23 and 25 were rejected under 35 USC § 103(a) as being rendered obvious by Stankus (U.S. Patent No. 6,150,190) in view of Ho ("High Index Contrast Mirrors for Optical Microcavities"). Applicant respectfully traverses this rejection.

Applicant would agree that Stankus does teach a plurality of layers (62-68) creating a device having Bragg reflection properties. Applicant adamantly disagrees with the Examiner and points out that Stankus does not teach one or more first/sacrificial layers (62, 66) adjacent to second/structure layers (64, 68), the first and second layers having at least one sidewall and a support layer (70) formed over a portion of the sidewalls to support the second layers against movement (Figure 9). Applicant respectfully submits that the Examiner has misinterpreted Stankus. Applicant respectfully points out that layers 62, 64, 66 and 68 are each comprised of materials that are not to be etched away thereby creating a space between layers. Col. 8, lines 5-10 specifically states "generally, in Figure 9, the layers 62-68 may comprise any material that is not a seed layer or sublayer for subsequent epitaxial growth, (if

epitaxial growth is used) and that provides proper Bragg reflection properties.” As such, layers 62-68 are comprised of a material (not a gas, liquid or vacuum) and are not intended to establish a space or gap between layers. Furthermore, the same lines (col. 8, lines 5-10) indicate that “the sidewall spacer 70 is any material that can be etched selectively to the layers 62-68 and the substrate 12”. Applicant points out that the sidewall spacer 70 of Stankus is not for supporting the layers 62-68, but instead is to be etched away selectively from the layers 62-68. At col. 8, lines 22-33, Stankus specifically requires that the spacer 70 is etched selective to layers 62-68. The etching process creates a gap between the stack dielectric 62-68 and the polished polysilicon layer 72 as illustrated in Figure 11. As such, Applicant respectfully submits that the spacer layer 70, which the Examiner has indicated as being a support layer and used to support the second layers against movement, is in reality etched away according to Stankus. As a result of the etching of spacer layer 70, any gaps between Stankus layers 62-68 would move or collapse because there would be no spacer 70 to stop them from moving or collapsing. As such, Applicant respectfully submits that Stankus does not teach, allude to or render obvious “a support layer formed over a portion of the sidewalls to support the second layers against movement” or the like.

Applicant would agree that Ho teaches the use of GaAs and air to form the Bragg grating in Figure 1A of Ho. Applicant respectfully points out that Ho does not teach, allude to or render obvious “a support layer formed over a portion of the sidewalls”. Ho discloses no support layer about the sidewalls. Instead, Ho specifically teaches and requires a multitude of layers forming a pillar within the layered structure to support the multiple layers. (See Ho, Figure 1A within the dashed region.)

Based on the above descriptions of the cited art, it can be seen that a *prima facie* case of obviousness has not been established. It is well known to the Examiner that establishing a *prima facie* case of obviousness requires three basic criteria. First, there must be some suggestion or motivation from either the references themselves, to modify the references or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the cited art references, when combined, must teach or suggest all the claim limitations. (See MPEP § 2142.) The present § 103 rejection fails on at least two of these criteria.

The Stankus - Ho combination fails to disclose “a support layer formed over a portion of the sidewalls to support the second layers against movement”. Secondly, since Stankus does not teach a support sidewall, but instead teaches a spacer which is etched away, there is no suggestion or motivation from either reference to create a “support layer formed over a portion of the sidewalls to support the second layers against movement”. In fact, Stankus would teach away from the present invention because the spacer sidewall 70 is etched away, thereby leaving no support walls for the Bragg reflector portion of Stankus. Applicant respectfully traverses the §103 rejection and submits that the claims are all in condition for allowance over the cited art because a *prima facie* case of obviousness has not been satisfied. Applicant respectfully requests that the § 103 rejection be withdrawn.

Accordingly, it is believed that entry of this amendment is warranted under the provisions of 37 CFR § 1.116, as it would clearly reduce those issues which might be present upon a filing of an Appeal. However, Applicant respectfully submits that the entry of this amendment is more importantly warranted in that it clearly causes these claims to be patentably distinguishable over the art of record and that this application should be

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reconsidered and all claims be indicated as allowed. Applicant therefore respectfully requests entry of this amendment, the reconsideration of this application and earnestly solicits an early Notice of Allowance.

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Respectfully submitted,

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